



**US Army Corps
of Engineers®**
Engineer Research and
Development Center

Physical Model Study of Thomsen Harbor, Sitka, Alaska

Description

The Alaska District of the Corps of Engineers is responsible for maintaining the Federal navigation project associated with New Thomsen Harbor, Sitka, Alaska. Sitka is located on the west coast of Baranof Island fronting the Pacific Ocean on Sitka Sound. Sitka is 95 air miles southwest of Juneau and 185 miles northwest of Ketchikan, Alaska. New Thomsen Harbor is protected by three breakwaters situated near Channel Rock at the northwestern entrance to Western Channel.

Local observations indicate that wave energy from the northwest is impacting the outer floats of New Thomsen Harbor causing a higher than expected level of movement on the outer floats. Measurements are being obtained by the Alaska District to document the period range and amplitude of the waves action within the harbor.



Aerial photograph of Thomsen Harbor, Sitka, Alaska

Issue

In FY05, the Coastal and Hydraulics Laboratory (CHL) at the US Army Engineering Research and Development Center (ERDC) proposes to address the problem of excessive wave action in Thomsen Harbor using a small-scale, fixed-bed physical model. The objectives of the studies, are (1) establish the cause for excessive motion within the harbor, and (2) develop and optimize engineering alternatives to reduce motion at the docks, and reduce the current level of maintenance.

Sponsors

US Army Corps of Engineers, Alaska District

Point of Contact

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